

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: July 10, 1997
Date Received: July 3, 1997
Project: Metro Self Monitor, PO #M74695
Date Samples Extracted: July 7, 1997
Date Extracts Analyzed: July 8, 1997

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, ZINC
USING METHOD 6010**

Samples Processed Using Method 3005A
Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M74695	0.34	0.35	0.33	0.07
Method Blank	<0.05	<0.05	<0.05	<0.05

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**QUALITY ASSURANCE RESULTS FOR
THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Laboratory Code: 79361 (Duplicate)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>Relative Percent Difference</u>	<u>Acceptance Criteria</u>
Chromium	mg/L (ppm)	0.34	0.32	6	0-20
Copper	mg/L (ppm)	0.35	0.29	19	0-20
Nickel	mg/L (ppm)	0.33	0.32	3	0-20
Zinc	mg/L (ppm)	0.07	0.12	53a	0-20

Laboratory Code: 79361 (Matrix Spike)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>Sample Result</u>	<u>% Recovery</u>		<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
				<u>MS</u>	<u>MSD</u>		
Chromium	mg/L (ppm)	5	0.34	98	94	80-120	4
Copper	mg/L (ppm)	5	0.35	95	88	80-120	8
Nickel	mg/L (ppm)	10	0.33	94	94	80-120	0
Zinc	mg/L (ppm)	5	0.07	97	96	80-120	1

Laboratory Code: Spike Blank

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>% Recovery</u>		<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
			<u>MS</u>	<u>MSD</u>		
Chromium	mg/L (ppm)	5	99	100	80-120	1
Copper	mg/L (ppm)	5	97	99	80-120	2
Nickel	mg/L (ppm)	10	100	100	80-120	0
Zinc	mg/L (ppm)	5	101	101	80-120	0

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Beth Albertson, M.S.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.
Melanie Kirol, B.S.
July 10, 1997

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**INVOICE # 97ACU0710-1
DUPLICATE COPY**

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M74695: Results of testing requested by
Gerald Thompson, Project Manager for material submitted on July 3, 1997.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00

FEDERAL TAX ID #(b) (6)

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July 10, 1997

Gerald Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on July 3, 1997 from your Metro Self Monitor, PO #M74695 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson
Chemist

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Enclosures
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